WHAT IS CLAIMED IS:

1. A computing device, comprising:

a communications bus;

a display configured to display in more than one display mode and coupled to the communications bus;

a processor, coupled to the display and to the communications bus; and

a memory coupled to the communications bus, the memory configured to receive and provide access to display information to be communicated to the display, the memory being controlled by display logic, the display logic being configured to manage the memory and allocate the memory according to the display mode and the display logic is configured to change the display mode during operation of the computing device.

2. The computing device of claim 1, wherein the display mode is dependent upon the application running on the processor.

3. The computing device of claim 1, wherein the display mode is dependent upon the available memory.

4. The computing device of claim 1, wherein the display mode is dependent upon the available memory bandwidth.

5. The computing device of claim 1, wherein the more than one display mode includes a high resolution display mode.

6. The computing device of claim 1, wherein the more than one display mode includes a low resolution display mode.

7. The computing device of claim 1, wherein the more than one display mode includes a 18 bit color display mode.

8. The computing device of claim 1, wherein the more than one display mode includes a 24 bit color display mode.

9. The computing device of claim 1, wherein the more than one display mode includes an 8 bit display mode.

10. The computing device of claim 1, wherein the more than one display mode includes a display mode having up to 25,600 pixels.

11. The computing device of claim 1, wherein the more than one display mode includes a display mode having up to 102,400 pixels.

12. The computing device of claim 1, wherein the more than one display mode includes a text display mode.

13. The computing device of claim 1, wherein the more than one display mode includes a monochrome display mode.

14. The computing device of claim 1 , wherein the memory includes random access memory (RAM).

15. A personal digital assistant, comprising:

a communication bus;

a display configured to display in more than one display mode and coupled to the communications bus;

a processor, coupled to the display and to the communications bus; and

a unified memory coupled to the communications bus, the unified memory configured to receive and provide access to display information to be communicated to the display, the unified memory being controlled by display logic, the display logic being configured to manage the unified memory and allocate the unified memory according to the

display mode and the display logic is configured to change the display mode during the operation of the personal digital assistant.

16. The personal digital assistant of claim 15, wherein the display mode is dependent upon an application running on the processor.

17. The personal digital assistant of claim 15, wherein the display mode is dependent upon a mode signal from the operating system.

18. The personal digital assistant of claim 15, wherein the display mode is dependent upon the display requirements of an application running on the processor.

19. The personal digital assistant of claim 15, wherein the display includes a touch screen.

20. The personal digital assistant of claim 15, wherein the unified memory includes random access memory (RAM).

21. The personal digital assistant of claim 15, wherein further comprising:

a display controller, wherein the display controller is configured to perform the display logic.

22. A computing device, comprising:

a communications bus;

a display configured to display in more than one display mode and coupled to the communications bus;

a processor, coupled to the display and to the communications bus;

a unified memory coupled to the communications bus, the unified memory configured to receive and provide access to display information to be communicated to the display, the unified memory being

controlled by display logic, the display logic being configured to manage the unified memory and allocate the unified memory according to the display mode and the display logic being configured to change the display mode during operation of the computing device; and

a display controller, the display controller configured to perform the display logic.

23. The computing device of claim 22, wherein the display mode is dependent upon an application running on the processor.

24. The computing device of claim 22, wherein the display mode is dependent upon a mode signal from the operating system.

25. The computing device of claim 22, wherein the display mode is dependent upon the display requirements of an application running on the processor.

26. The computing device of claim 22, wherein the display includes a touch screen.

27. The computing device of claim 22, wherein the unified memory includes random access memory (RAM).

28. The computing device of claim 22, wherein the computing device is included in a personal digital assistant.

29. The computing device of claim 22, wherein the computing device is included in a cellular phone.

30. The computing device of claim 22, wherein the computing device is included in a palmheld device.